



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Plate-All Metal Company, Akron, Ohio

FROM: Linda H. Rosen, Environmental Engineer
AECAB (IL/IN)

THRU: Nathan Frank, Section Supervisor
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: Plate-All Metal Company (Plate-All Metal)

Facility Location: 1210 DeValera Avenue

Date of Inspection: 12/08/2022

EPA Inspector(s):

1. Linda H. Rosen, Environmental Engineer
2. Emma Leeds, Environmental Engineer

Other Attendees:

1. Michael Scott, Manager, Plate-All Metal

Contact Email Address: sales@plateallmetal.com

Purpose of Inspection: chromium electroplating facility inspection

Facility Type: chromium electroplating

Regulations Central to Inspection: National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, 40 C.F.R. Part 63, Subpart N (Chromium Electroplating NESHAP)

Arrival Time: 2:45 p.m.

Departure Time: 4:00 p.m.

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☒ Provided Small Business Resource Information Sheet
- ☐ Small Business Resource Information Sheet not provided.
- ☒ Provided CBI warning to facility

The following information was obtained verbally from Michael Scott of Plate-All Metal unless otherwise noted.

Process Description:

The facility chrome plates steel and stainless steel molds for the rubber industry. An example is tire molds. The physical properties of the chrome plated mold help release the rubber from the mold. The facility currently operates four chromium electroplating tanks. Although six tanks are listed in the permit, two have not been used for about 10 years. The tanks are open and use hexavalent chromium. No trivalent chromium is used. The facility also uses two different fume suppressants. The fume suppressant is estimated to be ½ inch thick but they do not measure the thickness. The fume suppressants do not contain PFAS.

The tanks are controlled by a 3-stage mesh pad scrubber located on the roof of the building.

Staff Interview: The facility operates Monday-Friday from 8:00 to 4:30 p.m. and employs three, not including the owners, John and Irene Burg. HZW Environmental Services, located in Mentor, Ohio (contacts Jamie Dietz and Brooke Thompson) assist with Plate-All Metal's safety and environmental matters.

No major changes have occurred on the tanks since they were installed many years ago other than the replacement of rectifiers and liners. The maximum cumulative rectifier capacity, as confirmed in an email from Jamie Dietz on January 11, 2023, is 23,000 amps, as follows: Tanks 1 and 6 are 4,000 amps; Tank 2 is 5,000 amps and Tank 3 is 10,000 amps. The facility considers itself a "large" facility under the Chromium Electroplating NESHAP.

The facility has an operation and maintenance plan. The scrubber pads have never been changed but are washed every Friday in place. The rinse water returns to the tanks. The facility inspects the scrubber monthly and checks for leaks and cracks. These inspections are recorded. No corrective actions have been needed since 2018 but if there were corrective actions, they would be recorded. The facility performs surface tension measurements once every 3 months using a stalagmometer. Michael Scott did not recall the most recent surface tension reading.

The last stack test was conducted in November 2018. The stack test was conducted because the pressure drop was not displaying correctly and the system needed to be “recalibrated.” The tubing to the gauge was replaced. Michael Scott was not sure which of its two fume suppressants was used during the test.

The current acceptable pressure drop range is 3.6 to 3.8 inches of water column based on the 2018 stack test. The facility does not measure scrubber flow rate. If the pressure drop is out of range, the facility contacts HZW to help resolve the problem. Michael records the pressure every day and it has not been out of range since the 2018 incident.

The facility purchases its lead anodes and replaces them as needed about once per year. Only the anodes are replaced, not the bath. The composition of the bath is tested every 2 months by Plating International.

Facility production is measured in square inches of parts plated.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

The pressure drop was reading 3.8 today. We observed all the tanks. Tank 2 was operating. It is 48 inches wide, 48 inches deep and 84 inches long. The fumes were being drawn to the scrubber only on the right side of Tank 2. A small amount of fumes were being released into the air. Tanks 1 and 3 were not operating today. Tank 4 is one of the tanks that is no longer operated. Tank 6/6a had material in it but was not rectifying today.

We observed the scrubber on the roof and its stack.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

These records were observed during the inspection but were not taken from the facility:

- Stack test results from 2018 (Photo 1)
- Example daily plating log for tanks and actual log for December 2022 (Photos 2, 4 and 8)
- Example rolling 12-month amp-hours log (Photo 3)
- Emissions calculations from July 2022 (Photos 5 and 6)
- Scrubber pressure drop log from December 2022 (Photo 7)

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

- Copy of latest O & M plan;
- 2018 complete stack test report on scrubber;
- Scrubber Pressure logs for the period January 1, 2021 to the present;
- Daily plating logs and rolling 12-month amp-hour logs for the period January 1, 2021 to the present;
- Latest annual emission calculations for the facility;
- Safety Data Sheet for any and all wetting agents and where they are used;
- Initial notification of compliance status for chromium electroplating NESHAP; and
- Latest annual compliance report prepared pursuant to the chromium electroplating NESHAP.

DIGITAL SIGNATURES

Report Author: Linda H. Rosen

Section Supervisor: _____

Facility Name: Plate-All Metal Company
Facility Location: 1210 DeValera Company, Akron, Ohio
Date of Inspection: December 8, 2022

APPENDICES AND ATTACHMENTS

1. Digital Media Appendix

Facility Name: Plate-All Metal Company
Facility Location: 1210 DeValera Avenue
Date of Inspection: December 8, 2022

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Linda H. Rosen	2. Archival Record Location: Region 5 Electronic Records Center
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Image Number	File Name	Date and Time	Description of Image
1	IMG_0659.JPG	2022:12:08 15:31:45	2018 stack test results
2	IMG_0660.JPG	2022:12:08 15:32:18	Example of daily plating log
3	IMG_0661.JPG	2022:12:08 15:32:36	Example of rolling 12-month amp-hours log
4	IMG_0662.JPG	2022:12:08 15:33:14	Example of daily plating log
5	IMG_0663.JPG	2022:12:08 15:35:02	Chromium emission calculations July 2022
6	IMG_0664.JPG	2022:12:08 15:35:08	Chromium emission calculations July 2022
7	IMG_0665.JPG	2022:12:08 15:39:42	Scrubber pressure drop readings December 2022
8	IMG_0666.JPG	2022:12:08 15:40:42	Daily plating log December 2022
9	IMG_0667.JPG	2022:12:08 15:43:18	Tank 2
10	IMG_0668.JPG	2022:12:08 15:53:51	Tank 2
11	IMG_0669.JPG	2022:12:08 15:55:48	Side of tank 2 where fumes are captured
12	IMG_0670.JPG	2022:12:08 15:59:10	Scrubber on roof and stack